



44

SEQUENCE LISTING

<110> Hebbel, R.P.  
Lin, Y.  
Lollar, J.S.

<120> Transgenic circulating endothelial cells

<130> 600.449US1

<140> US 09/865,022  
<141> 2001-05-24

<150> PCT/US99/28033  
<151> 1999-11-24

<150> US 60/109,687  
<151> 1998-11-24

<160> 4

<170> FastSEQ for Windows Version 4.0

<210> 1  
<211> 5094  
<212> DNA  
<213> Artificial Sequence

<220>

<223> The DNA sequence of HSQ/eGFP.

<400> 1  
atgcaaatacg agctctccac ctgcttcttt ctgtgccttt tgcgattctg ctttagtgcc 60  
accagaagat actacacctggg tgcagtggaa ctgtcatggg actatatgca aagtgtatctc 120  
ggtagctgc ctgtggacgc aagatttctt cctagagtgc caaaatctt tccattcaac 180  
acctcagtcg tgtacaaaaaa gactctgttt gtagaattca cggttcaccc tttcaacatc 240  
gctaagccaa ggccaccctg gatgggtctg cttagtccta ccattccaggc tgaggtttat 300  
gatacagtgg tcattacact taagaacatg gcttcccatc ctgtcagttt tcattgtgtt 360  
ggtgtatcct actggaaagc ttctgaggga gctgaatatg atgatcagac cagtcaaagg 420  
gagaaagaag atgataaaagt cttccctgtt ggaagccata cataatgtctg gcaggtccctg 480  
aaagagaatg gtccaatggc ctctgaccctt ctgtgcctt cctactcata tctttctcat 540  
gtggacctgg taaaagactt gaattcaggc ctcattggag ccctacttagt atgttagagaa 600  
gggagtctgg ccaagaaaaa gacacagacc ttgcacaaat ttataactact ttttgcgtta 660  
tttgatgaag ggaaaaagttt gcactcagaa acaaagaact ccttgcgtca ggatagggat 720  
gctgcattctg ctcgggcctg gcctaaaatg cacacagtca atggttatgt aaacaggtct 780  
ctgcccaggc tgattggatg ccacaggaaa tcagtctatt ggcattgtat tggaaatgggc 840  
accactcctg aagtgcactc aatattcctc gaaggtcaca cattttttgtt gaggaaaccat 900  
cgccaggcgt cttggaaat ctcgccaata actttcctt ctgcattaaac actcttgatg 960  
gaccttggac agtttctact gttttgtcat atcttttccc accaacatga tggcatggaa 1020  
gcttatgtca aagttagacag ctgtccagag gaaccccaac tacgaatgaa aaataatgaa 1080  
gaagcggaaag actatgatga tgatcttact gattctggaa tggatgtggt caggtttgtat 1140  
gtgacaact ctccttcatt tatccaaatt cgctcagttt ccaagaagca tcctaaaact 1200  
tgggtacatt acattgtgc tgaagaggag gactgggact atgctccctt agtccctcgcc 1260  
cccgatgaca gaagtataa aagtcaatat ttgaacaatg gcccctcagcg gattggtagg 1320  
aagtacaaaaa aagtccgatt tatggcatac acagatgaaa cctttaagac tcgtgaagct 1380  
attcagcatg aatcaggaat cttgggaccc ttactttatg gggaaaggtagg agacacactg 1440  
ttgattatat ttaagaatca agcaagcaga ccatataaca tctaccctca cggaaatcaact 1500  
gatgtccgtc ctttgttattc aaggagatta cccaaagggtg taaaacattt gaaggatttt 1560  
ccaaattctgc caggagaaat attcaaataat aatggacag tgactgtaga agatggccca 1620

actaaatcag atcctcggtg cctgaccgc tattactcta gtttcgttaa tatggagaga	1680
gatctagctt caggactcat tggcccttc ctcatctgc acaaagaatc tgttagatcaa	1740
agaggaaacc agataatgtc agacaaggagg aatgtcatcc tgttttctgt atttgatgag	1800
aaccgaagct ggtacctcac agagaatata caacgcttc tcccaatcc agctggagtg	1860
cagcttgggg atccagagtt ccaagcttc aacatcatgc acagcatcaa tggctatgtt	1920
tttgatagtt tgcaagggtc agttgttg catgagggtgg catactggta cattctaagc	1980
attggagcac agactgactt ccttctgtc ttcttctctg gatataccct caaacacaaa	2040
atggctatg aagacacact caccctattc ccattctcg gagaactgt cttcatgtcg	2100
atggaaaacc caggtctatg gattctgggg tgccacaact cagacttcg gaacagaggc	2160
atgaccgcct tactgaaggt ttcttagtgc gacaagaaca ctggtgatata ttacgaggac	2220
agttatgaag atatttcagc atacttgcg agtaaaaaca atgccattga acctaggagc	2280
ttctctcaga atatggtag gaaaggcgag gagctgtca cgggggtggt gcccattctg	2340
gtcgagctgg acggcgacgt aaacggccac aagttcagcg tgcggcgaa gggcgaggc	2400
gatgccaccc acggcaagct gaccctgaag ttcatctgc ccacccgcaaa gtcggccgtg	2460
ccctggccca ccctcggtac caccctgacc tacggcgtgc agtgcttcag ccgctacccc	2520
gaccacatga agcagcacga cttcttcaag tccgccatgc ccgaaggcta cgtccaggag	2580
cgcaccatct tcttcaagga cgacggcaac tacaagaccc gcccggaggt gaagttcag	2640
ggcgacaccc tggtaaccg catcgagctg aaggcatcg acttcaagga ggacggcaac	2700
atcctggggc acaagctgga gtacaactac aacagccaca acgtctatcat gatggccgac	2760
aagcagaaga acggcatcaa ggtgaacttc aagatccgaa acaacatcgaa ggacggcagc	2820
gtgcagctcg ccgaccacta ccagcagaac accccatcg ggcacggccc cgtgtgtcg	2880
cccgacaccc actacactgag caccctgacc gcccgtgac aagacccaa cgagaagcgc	2940
gatcacatgg tcctgtggc gttcgtgacc gcccggggc tcactctcg catggacgag	3000
ctgtacaagt atccaccagt cttgaaacgc catcaacggg aaataactcg tactacttt	3060
cagtcagatc aagaggaat tgactatgtat gataccatata cagttgaat gaagaaggaa	3120
gattttgaca ttatgtga ggtggaaaat cagaccccccc gcaagcttca aaagaaaaaca	3180
cgacactatt ttatgtctgc agtggagagg ctctggatt atgggatgag tagctccca	3240
catgttctaa gaaacagggc tcagagtggc agtgccttc agttcaagaa agtttttc	3300
caggaattta ctgtatggcctt cttactctg cccttataacc gtggagaact aaatgaacat	3360
ttgggactcc tggggccata tataagagca gaaggtaag ataataatcat ggttaactttc	3420
agaaatcagg cctctcgcc ctattccttc tattcttagcc ttatcttta tgaggaagat	3480
cagaggcaag gacgacacc tagaaaaaac tttgtcaagc ctaatgaaac caaaacttac	3540
ttttggaaag tgcaacatca tatggcaccc actaaagatg agtttgactg caaagcctgg	3600
gcttattct ctgtatgtc cttggaaaaa gatgtgcact caggcctgat tggaccctt	3660
ctggctcgcc acactaacac actgaaccct gctcatggg gacaagtgc agtacaggaa	3720
tttgcgtgt ttttaccat ctttgcgtg accaaaagct ggtacttcac tgaaaatatg	3780
gaaagaaaact gcagggctcc ctgcaatatac cagatggaaat atcccacttt taaagagaat	3840
tatcgcttc atgcaatcaa tggctacata atggatacac tacctggctt agtaatggct	3900
caggatcaaa ggattcgatg gatctcgcc agcatggca gcaatggaaa catccattct	3960
attcatttca gtggacatgt gttcaactgtc cgaaaaaaag aggagtataa aatggcactg	4020
tacaatctct atccagggtt ttttgcgtg acgtggaaatgt taccatccaa agctggaaatt	4080
tggcgggtgg aatgccttat tggcgagcat ctacatgtc ggatggacac acttttctg	4140
gtgtacagca ataagtgtca gactccccctg ggaatggctt ctggacacat tagagat	4200
cagattacag cttcaggaca atatggacag tggggccaa agctggccag acttcattat	4260
tccggatcaa tcaatgcctg gaggccaaag gagccctttt cttggatcaa ggtggatctg	4320
ttggcaccat tgattattca cggcatcaag acccagggtg cccgtcagaa gttctccagc	4380
ctctacatct ctcagttat catcatgtat agtctgtat ggaagaagtgc gcaacttat	4440
cgagggaaatt ccactggaaac cttaatggtc ttcttggca atgtggattc atctggata	4500
aaacacaata ttttaaccc tccaattatt gtcgatatac tccgtttgca cccaaactcat	4560
tatagcattc gcagcaactt tcgcgtggag ttgtgggct gtgatggaaa tagttgcgc	4620
atgccattgg gaatggagag taaagcaata tcagatgcac agattactgc ttcatcctac	4680
tttaccaata tggggccac ctggctctct tc当地ggactc gacttcaccc ccaaggagg	4740
agtaatgcct ggagacctca ggtgaataat cccaaagagt ggctgcaatggacttccag	4800
aagacaatga aagtccacagg agtaactact caggaggtaa aatctctgtc taccagcatg	4860
tatgtgaagg agttcctcat ctccagcactt caagatggcc atcagtgac tctttttt	4920
cagaatggca aagtaaagggt tttcaggaa aatcaagact cttcacacc tgggtgaac	4980
tctctagacc caccgttact gactcgctac cttcaattc accccagag ttgggtgcac	5040
cagattgccc tgaggatgga gttctggc tgcgaggcac aggacctcta ctga	5094

<210> 2  
<211> 12445  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> The DNA sequence of HSQRENeo.

<400> 2

gaattccgga	attccagctt	gctgtggaat	gtgtgtcagt	tagggtgtgg	aaagtcccca	60
ggctccccag	caggcagaag	tatgcaaagc	atgcatctca	attagtcaagc	aaccagggtgt	120
ggaaagtccc	caggctcccc	acgaggcaga	agtatgcaaa	gcatgcac	caattagtca	180
gcaaccatag	tcccggccct	aactccgccc	atcccgcccc	taactccgccc	cagttccgccc	240
cattctccgc	cccatggctg	actaattttt	tttatttatg	cagaggccga	ggccgcctcg	300
gcctctgagc	tattccagaa	gtatgtgagga	ggctttttt	gaggggtcct	cctctgtatag	360
aaactcggac	cactctgaga	cgaaggctcg	cgtccaggcc	agcacgaagg	aggctaagt	420
ggaggggtag	cggtcgttgt	ccactagggg	gtccactcgc	tccagggtgt	gaagacacat	480
gtgcgcctct	tcggcatcaa	ggaagggtat	tggtttatag	gtgttaggcca	cgtgaccggg	540
tgttcctgaa	gggggggtat	aaaaggggggt	gggggcgcgt	tcgtcctcac	tcttccgc	600
atcgctgtct	gcgaggggcca	gctgttggc	tcgcgggtga	ggacaaaactc	ttcgcggct	660
ttccagtagt	cttggatcgg	aaaccgcgtc	gcctccgaac	ggtactccgc	caccgaggga	720
cctgagcggag	tccgcatcga	ccggatcgga	aaacctctcg	agccaccatg	caaataagac	780
tctccacctg	tttcttctg	tgccctttgc	gattctgtt	tagtgcacc	agaagatact	840
acctgggtgc	agtggaaactg	tcatggact	atatgcaaaag	tgatctcggt	gagctgcgt	900
tggacgcaga	atttcctcct	agagtgccaa	aatctttcc	attcaacacc	tcagtcgtgt	960
acaaaaagac	tctgtttgt	gaattcacgg	ttcaccttt	caacatcgct	aagccaaggc	1020
caccctggat	gggtctgcta	ggtcctacca	tccaggctga	ggtttatgat	acagtggta	1080
ttacacttaa	gaacatggct	tcccacccctg	tcagtcctca	tgctgttgg	gtatcctact	1140
ggaaagcttc	tgagggagct	gaatatgtat	atcagaccag	tcaaaggag	aaagaagatg	1200
ataaaagtctt	ccctgggtga	agccatacat	atgtctggca	ggtcctgaaa	gagaatggtc	1260
caatggcctc	tgaccactg	tgccttaccc	actcatatct	ttctcatgt	gacctggtaa	1320
aagacttggaa	ttcaggcctc	attggagccc	tactatgtat	tagagaagg	agtctggcca	1380
aggaaaagac	acagacccctg	cacaaattta	tactacttt	tgctgtat	gatgaaggga	1440
aaagttggca	ctcagaaaca	aagaactcct	tgatgcagga	tagggatgt	gcacactgctc	1500
gggcctggcc	taaaatgcac	acagtcaatg	gttatgtaaa	caggtctctg	ccaggtctga	1560
ttggatgcca	caggaaatca	gtctattggc	atgtgattgg	aatgggcacc	actcctgaag	1620
tgcactcaat	attcctcgaa	ggtcacacat	ttctgtgag	gaaccatcg	caggcgtcct	1680
tggaaatctc	gccaataact	tcccttactg	ctcaaacact	cttgatggac	cttggacagt	1740
ttctactgtt	ttgtcatatc	tcttccacc	aacatgtatgg	catggaaact	tatgtcaaag	1800
tagacagctg	tccagaggaa	ccccaaactac	gaataaaaaa	taatgaagaa	gcgaaagact	1860
atgtatgtat	tcttactgtat	tctgaaatgg	atgtggtcag	gtttgtat	gacaactctc	1920
tttcctttat	ccaaattcgc	tcagttgcca	agaagcatcc	taaaacttgg	gtacattaca	1980
ttgctgctga	agaggaggac	ttggactatg	ctcccttagt	cctcgcccc	gatgacagaa	2040
gttataaaag	tcaatatttg	aacaatggcc	ctcagcggat	tggttaggaag	tacaaaaaag	2100
tccgatttat	ggcatacaca	gatgaaacct	ttaagactcg	tgaagctatt	cagcatgaat	2160
caggaatctt	gggaccttta	ctttatgggg	aagtggaga	cacactgtt	attatattta	2220
agaatcaagc	aagcaagacca	tataacatct	accctcacgg	aatcaactat	gtccgtcct	2280
tgtattcaag	gagattacca	aaaggtgtaa	aacatttggaa	ggattttcca	attctgccag	2340
gagaatattt	caaataaaa	tggacagtga	ctgtagaaga	tgggccaact	aaatcagatc	2400
ctcggtgcct	gaccgcctat	tactcttagt	tcgttaat	ggagagagat	ctagcttcag	2460
gactcattgg	ccctctccctc	atctgctaca	aagaatctgt	agatcaaaga	ggaaaccaga	2520
taatgtcaga	caagaggaat	gtcatccgt	tttctgtatt	tgatgagaac	cgaagctgg	2580
acctcacaga	gaatatacaa	cgctttctcc	ccaaatccagc	tggagtgccag	cttgaggatc	2640
cagagttcca	agcctccaac	atcatgcaca	gcatcaatgg	ctatgtttt	gatagttgc	2700
agttgtcagt	ttgtttgcata	gagggtggcat	actgttacat	tctaaggcatt	ggagcacaga	2760
ctgacttcct	ttctgtcttc	ttctctggat	ataccctcaa	acacaaaatg	gtctatgaag	2820

acacactcac cctattccca ttctcaggag aaactgtctt catgtcgatg gaaaacccag	2880
gtctatggat tctggggatc cacaactcg actttcgaa cagaggcatg accgccttac	2940
tgaaggttc tagtgtgac aagaacactg gtgattatta cgaggacagt tatgaagata	3000
tttcagcata cttgctgagt aaaaacaatg ccattgaacc taggagttc tctcagaatc	3060
caccagtctt gaaacgcccataacggggaa taactcgat tactcttcag tcagatcaag	3120
aggaaattga ctatgatgt accatatacg ttgaaatgaa gaaggaagat tttgacattt	3180
atgatgagga tgaaaatcg agcccccgca gcttcaaaa gaaaacacga cactatTTA	3240
ttgctgcagt ggagaggctc tgggattatg ggatgagtag ctcccccacat gttctaagaa	3300
acagggctca gagttgcagt gtccctcagt tcaagaaagt tgTTTCCAG gaatttactg	3360
atggctccctt tactcagcccc ttataccgtg gagaactaaa tgaacatttggactcctgg	3420
ggccatatat aagagcagaa gttgaagata atatcatggt aacttTcaga aatcaggcct	3480
ctcgtcccta ttccttctat tctagccttattttatgaa ggaagatcag aggcaaggag	3540
cagaacctag aaaaaacttt gtcaagccta atgaaaccaa aacttactt tgaaaagtgc	3600
aacatcatat ggcacccact aaagatgagt ttgactgca agcctggct tatttctctg	3660
atgttgaccc gggaaaagat gtgcactcg gcctgattgg accccttctg gtctgccaca	3720
ctaacacact gaaccctgct catgggagac aagtgcagt acaggaattt gctctgttt	3780
tcaccatctt tcatgagacc aaaagctgtt acttcactga aaatatgaa agaaactgca	3840
gggctccctg caatatccag atgaaagatc ccactttaa agagaattat cgcttccatg	3900
caatcaatgg ctacataatg gatacactac ctggcttagt aatggctcag gatcaaagga	3960
ttcgtatggta tctgctcagc atgggcagca atgaaaacat ccattctatt catttcagtg	4020
gacatgtttt cactgtacga aaaaaagagg agtataaaaat ggcactgtac aatctctatc	4080
caggtgtttt tgagacagtg gaaatgttac catccaaagc tggaatttgg cgggtggat	4140
gccttatttgg cgagcatcta catgctggta tgagcacact ttttctgtg tacagcaata	4200
agtgtcagac tccctctggta atggcttctg gacacattag agatTTTcag attacagctt	4260
caggacaata tggacagtgg gccccaaagc tggccagact tcattattcc ggatcaatca	4320
atgcctggag caccaaggag cccttttctt ggatcaaggt ggatctttg gcaccaatga	4380
ttattcacgg catcaagacc caggggtcccc gtcagaagtt ctccagcctc tacatctctc	4440
agtttatcat catgtatagt ctgtatggta agaagtggca gacttacatgaa gggaaattcca	4500
ctggAACCTT aatggcttcc ttggcaatg tgatttcatc tggtataaaa cacaatattt	4560
ttaaccctcc aattatttgcgatacatcc gtttgcaccc aactcattat agcattcgca	4620
gcactcttcg catggagttt atggctgtg atttaaatag ttgcagcatg ccattggaa	4680
tggagagtaa agcaatatca gatgcacaga ttactgctt atcctactt accaatatgt	4740
ttgccacctg gtctccttca aaagctcgac ttacacccatc tggtataaaa cacaatattt	4800
gacctcaggtaa gataatcca aaagagtggc tgcaagtggaa ctccagaag acaatgaaag	4860
tcacaggagt aactactcg ggagtaaaat ctctgttac cagcatgtat gtgaaggagt	4920
tcctcatctc cagcgtcaaa gatggccatc agtggactct ctTTTTCAG aatggcaaag	4980
taaaggTTT tcagggaaat caagactct tcacacctgt ggtgaactct ctagacccac	5040
cgttactgac tcgcttaccc tgaatttccccc cccagagttt ggtgcaccag attggcctga	5100
ggatggagggt tctggctgc gaggcacagg acctctactg agggcggccg ctgcagcacc	5160
tgccactgccc gtcacccatc cttccctcagc tccaggccag tgccctcccc tggcttgcct	5220
tctacccctt tgctaaatcc tagcagacac tgccttgaag ctcctgaat taactatcat	5280
cagtcctgca tttctttgtt gggggccag gagggtgcattt ccaatttaac ttaactcttta	5340
cctattttct gcagctgctc ccagattact cttcccttcc aatataacta ggcaaaaaga	5400
agtgaggaga aacctgcatttgc aacgcatttcc tccctgaaaa gttaggcctc tcagagtcac	5460
cacttcctct gttgtgaaaa aactatgttgc tgaaacttttgg aaaaagatattt ttatgtatgtt	5520
aacatttcag gttaagcctc atacgtttaa aataaaactc tcagttgtt attatcctga	5580
tcaagcatgg aacaaagcat gtttcaggat cagatcaata caatcttggaa gtcaaaaggc	5640
aaatcattttt gacaatctgc aaaaatggaga gaatacaata actactacatgaaatgttgc	5700
ttctgcttcc ttacacatag atataattt gttatTTTGT cattatgagg ggcacatttct	5760
tatctccaaa actagcattc taaaactgttgc aattatagat ggggttcaag aatccctaa	5820
tccctgtaaa ttatataagg cattctgtat aaatgcaat gtcattttt ctgcacgttg	5880
tccatagata tgggacatcat gacgtgagct cagatcttgc tgaaaggacc ttacttctgt	5940
ggtgtgacat aattggacaa actacatcaca gagattttaa gctctaaggt aaatataaaa	6000
tttttaagtg tataatgttgc taaaactactg attctaattt gttgtgttattt ttagatttca	6060
acctatggaa ctgatgtatgc ggacgtgg tggatgcct ttaatgagga aaacctgttt	6120
tgctcagaag aaatgcccattc tagtgcgtat gaggctactg ctgagtgatgc acattctact	6180
cctccaaaaa agaagagaaaa ggttagaagac cccaaaggact ttccctcaga attgctaagt	6240
tttttgagtc atgctgtgtt tagtaataga actcttgcattt gctttgcattt ttacaccaca	6300

aaggaaaaag ctgcactgct atacaagaaa attatggaaa aatattctgt aacctttata	6360
agttaggcata acagtataa tcataacata ctgtttttc ttactccaca caggcataga	6420
gtgtctgcta ttaataaacta tgctaaaaa ttgtgtacct ttagctttt aatttgtaaa	6480
ggggtaata aggaatattt gatgtatagt gccttgacta gagatcataa tcagccatac	6540
cacatttcta gaggtttac ttgctttaa aaacctccca cacctcccc tgaacctgaa	6600
acataaaaatg aatgcaattt tggttggtaa cttgtttatt gcagctata atgttacaa	6660
ataaaagcaat agcatcacaa atttcacaaa taaagcattt ttttcaactgc attctagtt	6720
tggtttgc aaactcatca atgtatctta tcatgtctgg atcctctacg ccggacgcac	6780
cgtggccggc atcaccggcg ccacagggtgc ggttgcgtgc gcctatatacg ccgacatcac	6840
cgatggggaa gatcgggctc gccacttcgg gctcatgagc gcttgggtcg gctgggtat	6900
ggtggcaggc ccgtggccgg gggactgttg ggcgcctatct ccttgcatgc accattccctt	6960
gcggccggcg tgctcaacgg cctcaaccta ctactgggtc gcttcctaat gcaggagtcg	7020
cataagggag agcgtcgaaa ttctcatgtt tgacagctt tcatacgccg agcaccatgg	7080
cctgaaataa cctctgaaag aggaacttgg ttaggtacct tctgaggccg aaagaaccag	7140
ctgtggaatg tgtgtcagtt aggggtgtgaa aagtccccag gctggggagc aggcagaagt	7200
atgcaaagca tgcatactcaa ttagtcagca accagggtgtg gaaagtcccc aggctcccc	7260
gcaggcagaa gtatgcaaag catgcatactc aattagtcag caaccatagt cccccccta	7320
actccgcccc tcccgcccc aactccgccc agttccgccc attctccgccc ccatggctga	7380
ctaattttt ttatttatgc agaggccgag gccgcctcg cctctgagct attccagccg	7440
tagtgaggag gctttttgg aggccttaggc ttttgcaaaaa agcttcacgc tgccgcaagc	7500
actcagggcg caagggctgc taaaggaagc ggaacacgta gaaagccagt ccgcagaaac	7560
ggtgcgtgacc ccggatgaaat gtcagctact gggctatctg gacaaggaa aacgcaagcg	7620
caaagagaaa gcaggttagct tgcagtgccc ttacatggcg atagctagac tggcggttt	7680
tatggacagc aagcgaaccg gaattgcccag ctggggcgcc ctctggtaag gttgggaagc	7740
cctgcaaagt aaactggatg gctttcttgc cgccaaaggat ctgatggccg agggatcaa	7800
gatctgatca agagacagga tgaggatctg ttcgcataat tgaacaagat ggattgcacg	7860
cagggtctcc ggccgcttgg gtggagaggc tattcgctta tgactggca caacagacaa	7920
tcggctgctc tgatgcccgtc gtgttccggc tgcagcgca ggggccccg gtttttttg	7980
tcaagaccga cctgtccggc gcccgtaaatg aactgcagga cgaggcagcg cggctatcg	8040
ggctggccac gacggcggtt cttgcgcag ctgtgcgtcg cgttgcact gaagcgggaa	8100
gggactggct gctattggc gaagtgcggg ggcaggatct cctgtcatct caccctgctc	8160
ctgcccggaaa agtattccatc atggctgatg caatgcggcg gctgcatacg ctgtatccgg	8220
ctacctgccc attcgaccac caagcgaaac atcgcatacg gcgagcacgt actcgatgg	8280
aagccgtct tgcgatcag gatgatctgg acgaagagca tcaggggctc gcggcagccg	8340
aactgttcgc caggctcaag gcgcgcatacg ccgacggcgaa ggtatcgctc gtgaccatg	8400
gcgatgcctg cttgcgaat atcatggggaaaatggccg ctttcttgcgatcatcgact	8460
gtggccggct ggggtggcg gaccgctatc aggacatagc gttggctacc cgtatatttgc	8520
ctgaagagct tggcgccgaa tgggctgacc gcttctcgat ctttacggatcgccatcgctc	8580
ccgattcgca gcgcatacgcc ttctatcgcc ttcttgcgat gttcttgcgatcgccatcgctc	8640
ggggttcgaaa atgaccgacc aagcgacgccc caacctgcca tcacgagatt tcgatccac	8700
cgccgccttc tatgaaaggat tgggcttgg aatcggtttc cgggacggcg gctggatgat	8760
cctccagcgcc ggggatctca tgctggagtt cttcgcccccc cccgggctcg atcccctcg	8820
gagttgggtc agctgctgcc tgaggctggc cgacctcgcg gagttctacc ggcagtgcaa	8880
atccgtcgcc atccaggaaa ccagcagcgcc ctatccgcgc atccatggccc cggactcgca	8940
ggagtggggaa ggcacgatgg ccgcgttgcgatctt cccggatctt ttttgcgatcgccatcgctc	9000
gtgggtgtgac ataattggag aaactaccta cagagattt aagctctaaat gtaaatataaa	9060
aatttttaag tgtataatgt gttaaactac tgcattctat ttttgcgatcgccatcgctc	9120
caacctatgg aactgatgaa tgggagcaat ggtggatgc cttaatggatcgccatcgctc	9180
tttgcgtcaga agaaatgcca tctgtatgcgatg atgaggctac tgctgcactt caacattctaa	9240
ctccctccaaa aaagaagaga aaggtagaaag accccaaggat ctttccttca gatgtctaa	9300
gttttttgcgat tgcgtatgc ttttagtataa gaaactcttgc ttgcgttgcgatcgccatcgctc	9360
caaaggaaaaa agctgcactg ctatcacaaga aaattatggaa aaaatattct gtaaccttta	9420
taagtaggcata taacagttat aatcataaca tactgtttt tcttactccca cacaggcata	9480
gagtgtctgc tattaataac tgcgtcaaa aattgtgtac cttagctt ttaatttgcgatcgccatcgctc	9540
aagggggttaa taaggaatat ttgtatgtata gtcgtatgc tagagatcat aatcagccat	9600
accacatttgc tagaggtttt acttgcgttta aaaaacctcc cacacccccc cctgaacctg	9660
aaacataaaaa tgaatgcaat tgggtttt aacttgcgttta ttgcgtatgc taatgggtac	9720
aaataaaagca atagcatcac aaatttcaca aataaagcat tttttcact gcattctatgc	9780

tgtggtttgt	ccaaactcat	caatggtac	ttatcatgtc	tggatctcga	ccgagccctt	9840
gagagcctc	aaccaggta	gctccttccg	gtgggcgcgg	ggcatgacta	tcgtcgccgc	9900
acttatgact	gtctcttta	tcatgcaact	cgttaggacag	gtgcccggcag	cgtctgggt	9960
cattttcggc	gaggaccgt	tgcgtggag	cgcacgatg	atcggccctgt	cgcttgcgg	10020
attcgaatc	ttgcacgccc	tcgctcaagc	cttcgtcaact	ggtcccggca	ccaaacgttt	10080
cggcgagaag	caggccatta	tcgcccggcat	ggccggcgcac	gcgctgggct	acgtcttgct	10140
ggcgttcgcg	acgcgaggct	ggatggcctt	ccccattatg	attcttcgc	cttccggcgg	10200
catcgggatg	cccgcggtgc	aggccatgct	gtccaggcag	gtagatgacg	accatcagg	10260
acagcttcaa	ggatcgctcg	cggctcttac	cagcctaact	tcgatcaactg	gaccgctgat	10320
cgtcacggcg	atttatgccc	cctcggcgag	cacatggAAC	gggttggcat	ggattgtagg	10380
cgccgcctt	taccttgc	gcctccccc	gttgcgtgc	gggtcatgga	gccccggcac	10440
ctcgacctga	atgaaagccg	gccccaccc	gctaacggat	tcaccactcc	aagaattgga	10500
gccaatcaat	tcttgcggag	aactgtgaat	gcccggaa	acccttggca	gaacatatcc	10560
atcgcgtccg	ccatctccag	cagccgcac	cgccgcac	cgccgcgt	tgctggcg	10620
tttccatagg	ctccggcccc	ctgacgagca	tcacaaaaat	cgacgctcaa	gtcagagg	10680
gcgaaacccg	acaggactat	aaagatacca	ggcggttccc	cctggaa	ccctcg	10740
ctctcctgtt	ccgaccctgc	cgcttaccgg	atacctgtcc	gccttctcc	cttcggaa	10800
cgtggcgctt	tctcaatgct	cacgctgtac	ctatctcagt	tcgggttacc	tcgttcgtc	10860
caagctggc	tgtgtgcac	aaccccccgt	tcagccgcac	cgctgcgc	tatccgtaa	10920
ctatcgttt	gagtccaa	cggttaagaca	cgacttac	ccactggcag	cagccactgg	10980
taacaggatt	agcagagcga	ggtatgtagg	cggtgttaca	gagttctga	agtgggtgg	11040
taactacggc	tacactagaa	ggacagtatt	tggatctgc	gctctgtc	agccagttac	11100
tttcggaaaa	agagttggta	gctcttgc	cgccaaacaa	accaccgt	gtagcgg	11160
ttttttgtt	tgcaaggcgc	agattacgcg	cagaaaaaaa	ggtatctcaag	aagatcctt	11220
gatctttct	acggggctc	acgctcag	gaacgaaaac	tcacgtt	ggat	11280
catgagatta	tcaaaaagga	tcttac	gatc	atttttta	aattaaaaat	11340
atcaatctaa	agtatata	agtaaaactt	gtctgac	agt	taatcagt	11400
ggcacctatc	tcagcgat	gtcttac	ttcata	ttgc	tcccg	11460
gtagataact	acgatacggg	aggc	tttacc	atctgg	ccgt	11520
agacccac	tcacggc	cagattt	atc	ggc	ggc	11580
gcccaga	gtc	tttatcc	ctccat	tctt	tttgc	11640
agctagaga	agtagt	ccgtt	tttgc	tttgc	tttgc	11700
catcggtt	tcacgt	cg	tttgg	gg	tttgc	11760
aaggc	ac	ttt	tttgc	tttgc	tttgc	11820
gatcg	ttt	tttgc	tttgc	tttgc	tttgc	11880
taattctt	actgt	catcc	tttgc	tttgc	tttgc	11940
caagtcat	tgagaat	gtat	tttgc	tttgc	tttgc	12000
ggataatacc	gcgc	tttgc	tttgc	tttgc	tttgc	12060
ggggcgaaaa	ctct	tttgc	tttgc	tttgc	tttgc	12120
tgcacccaa	tgat	tttgc	tttgc	tttgc	tttgc	12180
aggaaggcaa	aatgc	tttgc	tttgc	tttgc	tttgc	12240
actcttcc	tttca	tttgc	tttgc	tttgc	tttgc	12300
catatttga	tgtattt	tttgc	tttgc	tttgc	tttgc	12360
agtgc	ccat	tttgc	tttgc	tttgc	tttgc	12420
tatc	tttgc	tttgc	tttgc	tttgc	tttgc	12445

<210> 3  
 <211> 23  
 <212> DNA  
 <213> Homo sapiens

<400> 3  
 gccc

tggatcaagg tgg

23

<210> 4  
 <211> 23

<212> DNA  
<213> Homo sapiens

<400> 4  
ctccctgagt agttactcct gtg

23